

**ABSTRACT OF THE DISCLOSURE**

A lightweight, four stroke engine includes a crankcase enclosure and at least one piston assembly disposed within the crankcase enclosure. The piston assembly cooperates with the crankcase enclosure to provide an internal pressure to the crankcase enclosure which varies between a positive and a negative pressure. An air intake assembly is operatively coupled to a first section of the engine and the crankcase enclosure, the air intake assembly including at least one air conduit configured to provide non-combustive air flow from the first section of the engine to the crankcase enclosure of the engine. At least one valve is disposed within the air intake system, the valve being configured to restrict air flow from the crankcase enclosure when positively pressurized and to allow airflow into the crankcase enclosure when negatively pressurized.